

14.

In the Claims:

Please cancel claims 8 and 16.

Please amend claims 1, 6, 7, 9, 14, 15, 17 and 18 as follows:

1. (Amended) A method of forming a shallow trench isolation structure, comprising:

forming an oxide layer to cover a substrate, wherein the substrate has a first silicon nitride layer formed thereon, and a shallow trench is located in the substrate and the first silicon nitride layer;

performing a wet etching step to etch the oxide layer until the first silicon nitride layer is about exposed;

forming a second silicon nitride layer to cover the oxide layer and the first silicon nitride layer;

forming a photoresist to cover the second silicon nitride layer;

defining the photoresist, and etching a portion of the second silicon nitride layer and the oxide layer; and

removing the photoresist, the second silicon nitride layer, and the first silicon nitride layer, wherein the oxide layer between the second silicon nitride layer and the first silicon nitride layer is removed while the second silicon nitride layer and the first silicon nitride layer are removed.

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6. (Amended) The method according to claim 1, wherein the step of removing the second silicon nitride layer and the first silicon nitride layer is performed by a wet bench.

7. (Amended) The method according to claim 6, wherein the wet bench uses a hot phosphoric acid as a clean solution.

9. (Amended) A method of forming a shallow trench isolation structure, comprising:

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forming an oxide layer to cover a substrate, wherein the substrate has a silicon nitride layer formed thereon, and a shallow trench is located in the substrate and the silicon nitride layer;

performing a wet etching step to etch the oxide layer until the silicon nitride layer is about exposed;

forming a photoresist to cover the oxide layer;

defining the photoresist to expose a portion of the oxide layer, and etching the portion of the oxide layer until the silicon nitride layer is exposed; and

removing the photoresist and the silicon nitride layer, wherein the oxide layer is removed while the silicon nitride layer is removed.

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14. (Amended) The method according to claim 9, wherein the step of removing the silicon nitride layer is performed by a wet bench.

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15. (Amended) The method according to claim 14, wherein the wet bench uses a hot phosphoric acid as a clean solution.

17. (Amended) A method of forming a shallow trench isolation structure, comprising:

providing a substrate, and the substrate has a first silicon nitride layer thereon;

defining a shallow trench on the substrate by a dry etch;

forming an oxide layer to cover the first silicon nitride layer and the shallow trench by a chemical vapor deposition;

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performing a wet etch step to etch the oxide layer until the first silicon nitride layer is about exposed;

forming a second silicon nitride layer to cover the oxide layer and the first silicon nitride layer;

forming a defined photoresist on the second silicon nitride layer;

etching the second silicon nitride layer and the oxide layer until the first silicon nitride layer is about exposed; and

removing the second silicon nitride layer and the first silicon nitride layer by a wet bench, wherein the oxide layer between the second silicon nitride layer and the first silicon nitride layer is removed while the second silicon nitride layer and the first silicon nitride layer are removed.

18. (Amended) The method according to claim 17, wherein the wet bench uses a hot phosphoric acid as a clean solution.
